ABSTRACT OF THE DISCLOSURE

In a multi-channel video optical transmission system comprising an optical transmitter and an optical receiver, a frequency modulation function incorporated pilot signal generating unit is provided in the optical transmitter to generate a pilot signal frequency-modulated. This frequency-modulated pilot signal is superimposed on a multi-channel video signal inputted thereto and is converted into a frequency-modulated signal in a frequency modulator, and is transmitted through an optical fiber to an optical receiver in a state converted into an optical signal in a semiconductor laser device. In the optical receiver, the optical signal is again converted into an electric frequency-modulated signal in a light-receiving device and, after amplified in an amplifier, is demodulated in a frequency demodulator, thereby regenerating the multi-channel video signal before the input to the frequency modulator. In this configuration, the pilot signal is frequency-modulated to modulate the frequency of a distortion occurring at frequencies corresponding to the sum of or difference between the frequencies of the pilot signal and the multi-channel video signal, thus making fringe patterns on a TV monitor disappear.